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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,949	11/14/2003	Byung-Youn Song	1793.1085	7769

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EXAMINER	
KAYRISH, MATTHEW	

ART UNIT	PAPER NUMBER
2627	

DATE MAILED: 04/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/706,949	SONG ET AL.	
	Examiner	Art Unit	
	Matthew G. Kayrish	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 January 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see Amendment after Non-Final, filed 1/17/2006, with respect to the rejection of claims 1-25 under 35 USC § 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground of rejection is made in view of 35 USC § 103.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 2, 8-10, 14, 16-18, 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over, Lee (US Publication Number 2003/0193854), in view of Ezawa (US Patent Number 5663843).

4. Regarding claims 1, 18 and 22, Lee et al disclose:

An optical pickup actuator for driving, via a magnetic driving unit, in focusing, tracking, and tilting directions, a bobbin on which an objective lens is disposed (page 1, paragraph 3), comprising:

Lee fails to disclose:

At least one damping member disposed at a position where great changes in the optical pickup actuator occur when the magnetic driving unit drives the bobbin in one of the focusing, tracking, and tilting directions, so that a size of a second resonant peak is reduced.

Ezawa et al disclose:

At least one damping member disposed at a position where great changes in the optical pickup actuator occur (figure 6, item 3b) when the magnetic driving unit drives the bobbin in one of the focusing, tracking, and tilting directions (column 7, lines 8-12), so that a size of a second resonant peak is reduced (See figure 8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to reduce vibrations in Lee's actuator by providing damping members.

5. Regarding claims 2 and 20, Lee et al disclose:

The optical pickup actuator of claim 1, wherein;

The magnetic driving unit includes:

First magnets disposed at opposing sides of the bobbin, respectively (figure 2, item 5);

Tracking coils which are wound around the bobbin to oppose respective ones of the first magnets (figure 2, item 6);

Second magnets which are spacedly disposed from respective ones of the first magnets, respectively (figure 2, item 3); and

Focusing coils which are wound between the first magnets and the second magnets (figure 2, item 7),

Lee fails to disclose:

Wherein a first damping member is disposed at a center portion of the focusing coils.

Ezawa et al disclose:

Wherein a first damping member is disposed at a center portion of the focusing coils (figure 6, item 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to place damping members in the center portions of focus coils to limit the vibrations for a more focused signal.

6. Regarding claims 8 and 14, Lee et al disclose:

The optical pickup of claim 1, wherein the bobbin is movably supported by plural suspension wires (figure 5, item 30).

7. Regarding claims 9 and 16, Lee et al disclose:

The optical pickup actuator of claim 2, further comprising: first yokes to which the first magnets are respectively attached (figure 2, item 4-1 (first pair));

Second yokes to which the second magnets are respectively attached (figure 2, item 4-1 (second pair)); and

Third yokes to which third magnets are respectively attached (figure 2, item 4-2).

8. Regarding claim 10, Lee et al disclose:

An optical pickup actuator comprising:

A base (figure 5, item 20);

A moving unit in which an objective lens is disposed at a side thereof (figure 5, item 11) and having a receiving hall at a center thereof (figure 5, magnets and coils reside in receiving hall);

A bobbin which is receivable in the receiving hall so as to move together with the moving unit (figure 5, magnets are within receiving hall); and

A magnetic driving unit disposed in the base and which drives the moving unit in focusing, tracking, and tilting directions (page 1, paragraph 3).

Lee fails to disclose:

An optical pickup actuator comprising:

A damping member disposed at at least one location where changes of the actuator occur most frequently;

Ezawa et al disclose:

An optical pickup actuator comprising:

A damping member disposed at at least one location where changes of the actuator occur most frequently (column 7, lines 8-12);

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to place damping members where the greatest changes occur to reduce some of the vibrations.

9. Regarding claim 17, Lee et al disclose:

The optical pickup of claim 16, wherein the bobbin includes a first guide hole (figure 5, item 22 fits into a guide holes), the receiving hall includes a second guide hole

(figure 5, item 2 fits into guide holes), and the first and second yokes are respectively received by the first and second guide holes (figure 5, item 22 fits into guide holes).

10. Claims 3, 6, 11, 19, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over, Lee, in view of Ezawa, in further view of Song (US Patent Number 6091553).

11. Regarding claims 3, 6, 19 and 23, Lee, in view of Ezawa, fails to disclose:

The optical pickup actuator of claim 2, wherein the bobbin has corners and second damping members are respectively disposed at each corner.

Song et al disclose:

The optical pickup actuator of claim 2, wherein the bobbin has corners and second damping members are respectively disposed at each corner (figure 5, item 80).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide Lee with the dampers of Song in the corners in order to damp the vibration of the lens holder, when the lens holder is moved toward the directions of focusing and tracking.

12. Regarding claim 11, Lee et al disclose:

The optical pickup actuator of claim 10, wherein the magnetic driving unit includes:

Focusing coils, which are wound around the bobbin (figure 2, item 13);

First and second magnets disposed at sides of the tracking coils (figure 5, item 21).

Lee, in view of Ezawa fail to disclose:

Tracking coils, which are wound around a side of the bobbin and are disposed at the center portion of the receiving hall; and

Song et al disclose:

Tracking coils, which are wound around a side of the bobbin and are disposed at the center portion of the receiving hall (figure 5, items 52a & 52b); and

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to place the focusing coils in the receiving hall of Lee's actuator, as this would allow the focusing coils and tracking coils to be worked off the same set of magnets, therefore saving on parts.

13. Regarding claim 24, Lee in view of Ezawa et al disclose:

The method of claim 23, wherein the reducing includes inserting a damping member at the at least one location (figure 6, item 3).

14. Claims 4, 5, 12, 15, 21 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over, Lee, in view of Ezawa, in further view of Song, in even further view of Kawano (US Publication Number 2001/0038581).

15. Claims 7 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee, in view of Ezawa, in further view of Kawano.

16. Regarding claims 4, 5, 7, 12, 13, 21 and 25, Lee, in view of Ezawa, in further view of Kawano et al disclose:

The optical pickup actuator of claim 3, wherein a metallic heterogeneous material is mixed with the second damping member (paragraph 152).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the damping members from a metallic material since this material for making dampers is well known in the art.

17. Regarding claim 15, Lee, in view of Ezawa fail to disclose:

The optical pickup apparatus of claim 14, wherein the receiving hall has shoulders at opposing sides thereof, and wherein the at least one location where changes of the actuator occur most frequently are the shoulders.

Kawano et al disclose:

The optical pickup apparatus of claim 14, wherein the receiving hall has shoulders at opposing sides thereof, and wherein the at least one location where changes of the actuator occur most frequently are the shoulders (figure 7, wires connect to shoulders).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate shoulders as a means of stabilizing some of the vibrations.

Conclusion

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew G. Kayrish whose telephone number is 571-272-4220. The examiner can normally be reached on 8am - 5pm M-F.

20. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on 571-272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

21. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Matthew Greco Kayrish 3/23/2006

MK

3/23/2006

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